

**ANHYDROUS, SILICONE MODIFIED FLUORINATED POLYMERS FOR TRANSFER-
RESISTANT COSMETIC LIP COMPOSITIONS**

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CROSS REFERENCE TO RELATED APPLICATION

This application claims the benefit under 35 USC 119(e) to U.S. Application Serial Number 60/462,862, filed April 14, 2003.

TECHNICAL FIELD

10 The present invention relates to anhydrous, transfer-resistant cosmetic lip compositions suitable for application to lips that comprise silicone modified fluorinated polymers, an organosiloxane resin, a definitive diorganopolysiloxane polymer, and a volatile carrier. Upon application the composition forms a thin, but, durable film resistant to transfer upon contact with objects such as clothing, towels, cups, handkerchiefs and tissues. The present invention also
15 relates to methods of enhancing performance and/or appearance by the addition of silicone modified fluorinated polymers in long wearing lip color products.

BACKGROUND

Transfer resistant lip products have gained increasing popularity over the last decade as consumers find themselves burdened with the stress of daily activities. These types of products
20 allow consumers to apply the lip product fewer times in a day but still achieve a freshly applied appearance. One shortcoming of a number of these products, however, has been the undesirable feel and quality of wear on the lips that accompanies the use of such products. For example, consumers complain of a tight feeling on the lips that typically results from the inclusion of film forming agents into these products that provide the long wear characteristic. Additionally,
25 consumers complain of the quality of wear of the lip color indicating that the color does not last throughout the day, i.e., the color does not retain a freshly applied, consistent look over an extended period of time. Thus, there remains a need for a lip product that not only provides a more pleasurable feel when applied and worn on the lips but, at the same time, provides a long, fresh-look wear for the consumer. Compositions of the present invention not only provide
30 profound film resistant to transfer upon contact with objects such as clothing, towels, cups, handkerchiefs and tissues throughout the day, but also provides the qualities to maintaining a freshly applied, consistent look. Additionally, appearance benefits such as gloss and shine are exemplified in a single step application of the invention.

Surprisingly, it has now been discovered that compositions containing silicone modified fluorinated polymers in combination with an organosiloxane resin, a diorganopolysiloxane polymer and a volatile carrier provide benefits in feel and wear previously unrecognized in the art of which the present inventors are aware. Additionally, such compositions provide profound film resistant to transfer upon contact with objects such as clothing, towels, handkerchiefs and tissues. Appearance benefits such as gloss and shine are exemplified in a single step application of the invention.

SUMMARY OF THE INVENTION

The cosmetic compositions of the present invention provide a durable film after application that resists degradation over time. Cosmetic compositions of the present invention comprise:

(A) an anhydrous mixture of:

(1) silicone modified fluorinated polymers;

(2) an organosiloxane resin; and

(B) a volatile carrier.

DETAILED DESCRIPTION

The compositions of the present invention are anhydrous, transfer-resistant lip cosmetic compositions. Lip products comprising the cosmetic compositions of the present invention exhibit a viscosity of from about 500 cP to about 15,000 cP, preferably from about 500 cP to about 8,000 cP, more preferably from about 1,000 cP to about 5,000 cP at room temperature.

As used herein, "comprising" means that other steps and ingredients can be added. This term encompasses the terms "consisting of" and "consisting essentially of". The phrase "consisting essentially of" means that the composition may include additional ingredients, but only if the additional ingredients do not materially alter the basic and novel characteristics of the claimed compositions or methods.

All percentages, parts and ratios are based upon the total weight of the topical compositions of the present invention and all measurements made are at 25°C, unless otherwise specified. All such weights as they pertain to listed ingredients are based on the active level and, therefore, do not include carriers or by-products that may be included in commercially available materials, unless otherwise specified.

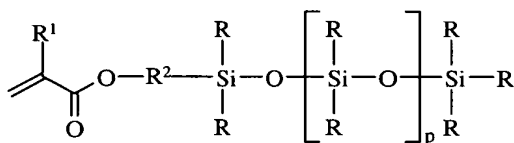
All publications cited herein are hereby incorporated by reference in their entirety.

As used herein, "lip product" means a cosmetic that can be applied to the lips and may be in the form of a liquid, conventional bullet, gel, cream, lip color pen, and the like.

The compositions of the present invention necessarily comprise the following ingredients.

Silicone Modified Fluorinated Polymers

The silicone modified fluorinated polymer is formed by polymerization of a fluorinated monomer containing a radically polymerizable group with a silicone macromonomer containing a radically polymerizable group and optionally a third monomer. Nonlimiting examples of silicone macromonomers of the present invention are represented by the general structure given below,



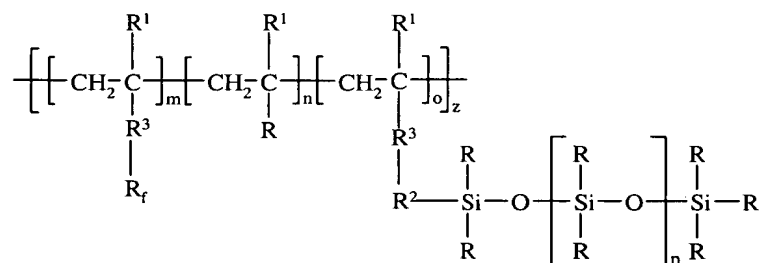
- wherein R is a monovalent hydrocarbon radical containing from 1 to 6 carbon atoms, preferably selected from the group consisting of methyl, ethyl, propyl, isopropyl, butyl, isobutyl, t-butyl, amyl, hexyl, vinyl, allyl, cyclohexyl, phenyl, fluoroalkyl and mixtures thereof. R¹ is a hydrogen atom or methyl group. R² is a divalent, linear or branched, substituted or unsubstituted alkylene group having from 1-10 carbon atoms. The unit "p" is a value from 10 to 1000. Preferably, the fluorinated monomers are selected from the group consisting of 1,1-dihydroperfluoroalkyl acrylate or methacrylate, 1,1,2,2-tetrahydroperfluoroalkylacrylate or methacrylate, and mixtures thereof. Preferably, silicone macromonomers are selected from the group consisting of monomethacryloxypropyl terminated polydimethylsiloxane having a number average MW of from about 5000, monoacryloxypropyl terminated polydimethylsiloxane having a number average MW of from about 5000, and mixtures thereof.

The silicone modified fluorinated polymers of the present invention may further comprise additional radically polymerizable monomers to adjust Tg and solubility. Such monomers are well known to one of ordinary skill in the art. Nonlimiting examples include alkyl acrylate or methacrylate esters such as methyl acrylate, methyl methacrylate, t-butyl acrylate, t-butyl methacrylate, n-butyl acrylate, n-butyl methacrylate, ethylhexyl acrylate, ethylhexyl methacrylate, and the like.

Without being limited by theory, the presence of fluoro-groups in the co-polymer causes it to migrate to the air interface of the composition where it imparts oil and water resistance and provides optimum wear and feel benefits. The fluoro-groups not only make the polymer migrate to the surface, but also make the fluoro-polymer incompatible with the rest of the cosmetic

formula which can be a problem with available non-silicone modified fluorinated polymers. The silicone modified fluorinated materials of the present invention combine the silicone, which improves compatibility with the rest of the formula and the fluoro-groups in order to provide surface modification for improved performance.

- 5 Silicone modified fluorinated polymers useful in the present invention have the following general structure:



- wherein each R is independently selected from the group consisting of methyl, ethyl, propyl, isopropyl, butyl, isobutyl, t-butyl, amyl, hexyl, vinyl, allyl, cyclohexyl, phenyl, fluoroalkyl and mixtures thereof. Additionally, R is
- 10 a monovalent hydrocarbon radical containing from 1 to 6 carbon atoms. Preferably, R¹ is H or CH₃, R² is a divalent, linear or branched, substituted or unsubstituted alkylene group having from 1-10 carbon atoms, and R³ is a divalent group, selected from the group consisting of carboxy, carboxamide, R², and substituted or unsubstituted arylene. R_f is a monovalent fluorinated material selected from the group consisting of fluorinated linear aliphatic, fluorinated branched aliphatic, fluorinated silicone, and fluorinated polyether. Preferably R_f is a 1,1-dihydroperfluoroalkyl or 1,1,2,2-tetrahydroperfluoroalkyl.
- 15 The units m, n, o and z are adjustable such that the number average molecular weight of the polymer is above 10,000 and the weight fraction of silicone falls between 5 and 50 weight percent. The unit "p" is a value from 10 to 1000. The silicone modified fluorinated polymers of the present invention include acrylates, methacrylates, styrenics, acrylamides, methacrylamides, olefins and other radically polymerizable polymers.
- 20 The silicone modified fluorinated polymers are used in the present invention at levels from about 0.01% to about 5%, preferably from about 0.1% to about 2.5% and most preferably from about 0.25% to about 1% of the total amount of the cosmetic composition. Preferably, the

silicone modified fluorinated polymers have a number average molecular weight between 10,000 g/mole and 10,000,000 g/mole.

Additionally, compositions of the present invention may comprise modified silicone polymers comprising aminosilicones, epoxy modified and carboxy modified silicones or acrylate based pressure sensitive adhesives used alone or in combination with the silicone modified fluorinated polymers disclosed above.

Organosiloxane Resin

The compositions of the present invention comprise an organosiloxane resin. The resin may comprise combinations of $R_3SiO_{1/2}$ "M" units, R_2SiO "D" units, $RSiO_{3/2}$ "T" units, SiO_2 "Q" units in ratios to each other that satisfy the relationship $R_nSiO_{(4-n)/2}$ where n is a value between 1.0 and 1.50 and R is a methyl group. Up to 5% of silanol or alkoxy functionality may also be present in the resin structure as a result of processing. The organosiloxane resins have a number molecular weight average range of from about 1,000 g/mole to about 10,000 g/mole. The resin is soluble in organic solvents such as toluene, xylene, isoparaffins, and cyclosiloxanes or the volatile carrier, indicating that the resin is not sufficiently crosslinked such that the resin is insoluble in the volatile carrier. Particularly preferred are resins comprising repeating monofunctional or $R_3SiO_{1/2}$ "M" units and the quadrafunctional or SiO_2 "Q" units, otherwise known as "MQ" resins as disclosed in U.S. Patent 5,330,747, Krzysik, issued July 19, 1994, incorporated herein by reference. In the present invention the ratio of the "M" to "Q" functional units is about 0.6 to about 2.0, more preferably about 0.6 to about 0.9, most preferably about 0.7. Examples of organosiloxane resins commercially available are Wacker 803 and 804 available from Wacker Silicones Corporation of Adrian Michigan, and G.E. SR1000 from the General Electric Company.

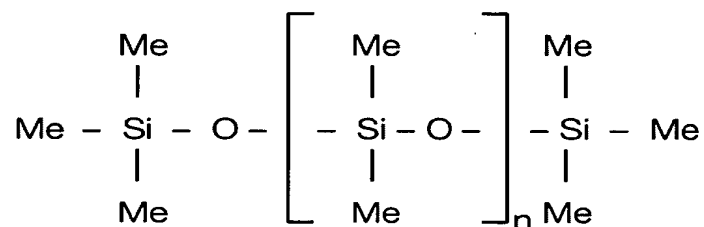
The organosiloxane resins are used in the present invention at levels from about 10% to about 95%, preferably from about 55% to about 80%, and most preferably 60% to about 70% of the total amount of organosiloxane resin, diorganopolysiloxane polymers and modified silicones.

Diorganopolysiloxane Polymer

The present invention employs a diorganopolysiloxane polymer that is combined with the organosiloxane resin disclosed above. Applicants have found that suitable polymers exhibit a viscosity of at least about 1,000,000 cSt at 25°C.

The diorganopolysiloxane polymers of the present invention comprise repeating units, wherein said units correspond to the formula (R_2SiO) , where R is a monovalent hydrocarbon radical containing from 1 to 6 carbon atoms, preferably selected from the group consisting of

methyl, ethyl, propyl, isopropyl, butyl, isobutyl, t-butyl, amyl, hexyl, vinyl, allyl, cyclohexyl, phenyl, fluoroalkyl and mixtures thereof. The diorganopolysiloxanes employed in the present invention may contain one or more of these hydrocarbon radicals as substituents on the siloxane polymer backbone. The diorganopolysiloxanes may be terminated by triorganosilyl groups of the formula (R'_3Si) where R' is a radical selected from the group consisting of monovalent hydrocarbons containing from 1-6 carbon atoms, hydroxyl groups, alkoxy groups and mixtures thereof. When a diorganopolysiloxane polymer is present, it is essential that it be compatible in the mixture with the organosiloxane resin material and the volatile carrier. The term "compatible" refers to the formation of a homogeneous blend when the diorganopolysiloxane, organosiloxane resin and volatile carrier are mixed together in ratios required for a specific formulation. A particularly preferred diorganopolysiloxane polymer is poly(dimethylsiloxane), herein referred to as PDMS. Suitable diorganopolysiloxane polymers have the following structural formula wherein n is equal to from about 1500 to about 4500:



15 Volatile Carrier

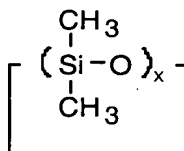
In the present invention, the combination of the organosiloxane resin and diorganosiloxane polymer above must be easily transferred to the lip surface using a package/applicator. To achieve delivery, it is necessary that this combination above be incorporated into a carrier, specifically a volatile carrier which quickly volatilizes from the surface of the lips leaving the above-discussed thin-durable film. The volatile carrier must solubilize the organosiloxane resin and the diorganosiloxane polymer.

The volatile carrier comprises from about 10% to about 90%, preferably from about 15% to about 80%, and most preferably from about 20% to about 70% of the composition. The volatile carrier of the present invention is selected from the group consisting of volatile hydrocarbons, volatile silicones and mixtures thereof.

Hydrocarbon oils useful in the present invention include those having boiling points in the range of 60-260°C, more preferably hydrocarbon oils having from about C₅ to about C₂₀ chain lengths, most preferably C₇ to C₁₆ isoparaffins. Of these isoparaffins most preferred are

selected from the group consisting of isododecane, isohexadecane, isododecosane, 2,2,4-trimethylpentane, 2,3-dimethylhexane and mixtures thereof. Most preferred is isododecane, which is also known as 2,2,4,6,6-pentamethylheptane. Isododecane that is suitable for inclusion in the compositions of the present invention is available from a number of sources, e.g., from Presperse, Inc. as Permethyl 99A.

Preferred volatile silicone fluids include cyclomethicones having 4, 5, and 6 member ring structures corresponding to the formula:



where X is from about 3 to about 6. Said volatile silicones include 244 Fluid, 344 Fluid and 245 Fluid, and 345 Fluid all from Dow Corning Corporation.

Thickeners/Structure Builders

The cosmetic composition of the present invention may also comprise thickeners and/or structure builders which have the function of dispersing pigments in addition to building viscosity. Thickeners and/or structure builders useful for the present invention include, but are not limited to, organically modified clays, fumed silica, silgels or silicone elastomers, alkyl silicone waxes, silicone polyamide, trihydroxystearin, diblock/triblock copolymers and silsequioxane crosspolymers. Organically modified clays useful for the present invention include, but are not limited to, hectorite, bentonite, smectite and montmorillonite clay.

When thickeners and/or structure builders are present, the compositions comprise less than about 10%, by weight of the composition, more preferably, less than about 5%, and most preferably from about 1% to about 3%.

Pigments

Pigments suitable for use herein are all inorganic and organic colors/pigments suitable for use in lip composition compositions. These are usually aluminum, barium or calcium salts or lakes. Lakes are either a pigment that is extended or reduced with a solid diluent or an organic pigment that is prepared by the precipitation of a water-soluble dye on an adsorptive surface, which usually is aluminum hydrate. A lake also forms from precipitation of an insoluble salt from an acid or basic dye. Calcium and barium lakes are also used herein.

Preferred lakes of the present invention are Red 3 Aluminum Lake, Red 21 Aluminum Lake, Red 27 Aluminum Lake, Red 28 Aluminum Lake, Red 33 Aluminum Lake, Yellow 5

Aluminum Lake, Yellow 6 Aluminum Lake, Yellow 10 Aluminum Lake, Orange 5 Aluminum Lake and Blue 1 Aluminum Lake, Red 6 Barium Lake, Red 7 Calcium Lake, Red 30 Talc Lake, and Red 30 Aluminum Lake.

5 Other colors and pigments can also be included in the lip compositions, such as dyes and pearls, titanium oxides, Red 6, Red 21, Blue 1, Orange 5, and Green 5 dyes, chalk, talc, iron oxides and titanated micas.

10 Compositions of the present invention contain sufficient pigments to provide the look sought by the user. The pigments are used herein at levels relative to the level of the diorganopolysiloxane polymers disclosed above. This level is expressed as a ratio of the combination of diorganopolysiloxane polymer and organosiloxane resin to pigment. In the present invention this ratio is from about 1:1 to about 30:1, preferably from about 1.5:1 to about 15:1, and most preferably from about 2:1 to about 10:1.

15 Additionally, the cosmetic compositions of the present invention are anhydrous. As used herein "anhydrous" means that the compositions comprise less than about 5%, by weight of the composition, of water, more preferably less than about 2%, and even more preferably less than about 1%.

The cosmetic compositions of the present invention are also in the form of liquid lip products. As such, the compositions comprise less than about 2%, by weight of the composition, of waxes, more preferably, less than about 1%, and most preferably less than about 0.5%.

20 Waxes

Waxes may be used in the present invention provided they are used at levels which do not interfere with film formation process.

25 Waxes are defined as lower-melting organic mixtures or compounds of high molecular weight, solid at room temperature and generally similar in composition to fats and oils except that they contain no glycerides. Some are hydrocarbons, others are esters of fatty acids and alcohols. Waxes useful in the present invention are selected from the group consisting of animal waxes, vegetable waxes, mineral waxes, various fractions of natural waxes, synthetic waxes, petroleum waxes, ethylenic polymers, hydrocarbon types such as Fischer-Tropsch waxes, silicone waxes, and mixtures thereof.

30 The specific waxes useful in the present invention are selected from the group consisting of synthetic waxes, ozokerite, jojoba esters, "Unilins", available from Petrolite Corporation, "Ganex" alkylated polyvinylpyrrolidines available from the ISP Company, fatty alcohols from C22 to C50 and mixtures thereof. Synthetic waxes include those disclosed in Warth, Chemistry

and Technology of Waxes, Part 2, 1956, Reinhold Publishing; herein incorporated by reference. The waxes most useful herein are selected from the C₈ to C₅₀ hydrocarbon waxes. Such waxes include long chained polymers of ethylene oxide combined with a dihydric alcohol, namely polyoxyethylene glycol. Such waxes include CarbowaxTM available from Carbide and Carbon Chemicals Company. Other synthetic waxes include long-chained polymers of ethylene with OH or other stop length grouping at end of chain. Such waxes include the Fischer-Tropsch waxes as disclosed in the text disclosed above at pages 465-469 and include Rosswax, available from Ross company and PT-0602 available from Astor Wax Company.

The cosmetic compositions of the present invention are also in the form of liquid lip products. As such, the compositions comprise less than about 2%, by weight of the composition, of waxes, more preferably, less than about 1%, and most preferably less than about 0.5%.

Other Ingredients

There are a number of other ingredients approved for use in the cosmetic art that may be used in compositions of the present invention. Such ingredients are those approved for use in cosmetics and can be found listed in reference books such as the CTFA Cosmetic Ingredient Handbook, Second Edition, The Cosmetic, Toiletries, and Fragrance Association, Inc. 1988, 1992. Said materials may be used provided their inclusion does not significantly disrupt the composition once it has been applied wherein a film has been formed. Said ingredients include fragrances, flavor oils, skin care ingredients such as sunscreen, emulsifiers and the like. Hypoallergenic compositions can be made into the present invention where said compositions do not contain fragrances, flavor oils, lanolin, sunscreens, particularly PABA, or other sensitizers and irritants.

Complementary products may be used in conjunction with the present invention to complement the composition and improve its aesthetic appeal to the user. In particular, it is intended that the cosmetic compositions of the present invention may be paired in a lip cosmetic kit with such a complementary product.

It is specifically envisioned that the complementary products used in the present invention manner wherein such a product is applied over the film formed after application of the cosmetic composition of the present invention. For example in the case of lip compositions, a complementary product may be utilized to enhance the gloss and shine of the lips and provide a lubricious feeling. Such products, otherwise known as an "overcoat" or "topcoat" may be in a stick or liquid form and can include any that are commercially available or to be developed, provided the aggregate of the materials comprising the overcoat does not significantly disrupt the composition of the present

invention. The overcoat compositions may be clear or transparent or may contain dyes and/or colorants that when viewed along with the overcoat, produce a desired color.

One such material that has been shown to be quite useful in formulating complementary products is polyol polyesters, such as sucrose polyesters (herein referred to as SPE'S). SPE's are synthesized molecules derived from sugar and vegetable oil and have been extensively disclosed in the patent literature in context of a non-digestible oils. Such compositions are generally disclosed in U. S. Patents 3,600,186, issued August 17, 1971; 4,005,195, issued January 25, 1977; 4,005,196, issued January 25, 1977; all assigned to the Procter & Gamble Company and all herein incorporated by reference.

It has found that overcoat compositions having a significant level of SPE'S are incompatible with the lip composition of the present composition wherein upon their application, the cosmetic composition of the present invention is not disrupted.

In a preferred embodiment of the present invention, a complementary product comprising a topcoat composition comprises a safe and effective amount of a polymeric vegetable oil emollient.

More preferably, the polymeric vegetable oil emollient is a copolymer of Brassica Campestris and Aleurites Fordii oil (also known as polytriglyceryl erucate/eliostearate), which is an unsaturated complex ester ranging in molecular weight from 25,000 to 110,000 (or 6500 to about 7500 daltons). This emollient is commercially available from Tri-K under the tradename Glossamer L-6600 and allows the topcoat to form a protective film over the cosmetic compositions of the present invention.

Such a topcoat composition aids in providing a creamier feel to the applied basecoat and topcoat and also enhances the water and rub-off resistance of the cosmetic composition as well as the topcoat composition. In more preferred embodiments, the polymeric vegetable oil emollient is present in an amount of from about 0.1% to about 50%, more preferably, from about 2% to about 20%, and most preferably, from about 4% to about 15%, by weight of the topcoat composition.

Silicone modified fluorinated polymers of the present invention may also be used as topcoats with the compositions of the present invention or with other transfer-resistant cosmetic compositions. Additionally, modified silicone polymers comprising aminosilicones, epoxy modified and carboxy modified silicones or acrylate based pressure sensitive adhesives may be used alone or in combination with the silicone modified fluorinated polymers of the present invention as topcoats.

METHOD OF USING THE INVENTION

The method of the present invention is straightforward. The user applies the composition of the present invention from a suitable liquid cosmetic applicator directly onto the skin. One such

applicator used for liquid products is a liquid pen package disclosed in British Patent 21198037, issued 5/09/90, assigned to Mitsubishi Pencil Co., Ltd. of Japan. An alternative package is one where a wand is dipped into a reservoir wherein the composition on the tip of the wand is applied to the skin surface. Such packages are disclosed in Japanese Utility Model 64 000822 Y2, to Shiseido.

5 Another cosmetic dispenser that is useful for the present invention is a unidirectional twist-up dispensing device with incremental dosing as disclosed in US Patent 5851079, issued on December 22, 1998 to Richard L. Horstman et al. Such a twist-up dispensing device can include a hollow housing defining a chamber having an open dispensing end and a piston located within the chamber being limited to translational movement within the chamber. The piston preferably having
10 a threaded rod extending therefrom that engages with a threaded aperture in an actuator such that advancement of the piston toward the dispensing end occurs when the actuator is rotated. Rotation of the actuator causes the product to be dispensed from the dispensing end. An applicator is preferably attached to the dispensing end of the housing in fluid communication with the chamber wherein the product is dispensed through the applicator. The applicator can comprise a ferrule and
15 an application portion wherein the ferrule is attached to the dispensing end of the housing and the application portion has at least one orifice located therein. Several versions of applicators can be utilized including, for example, a fiber brush or an application surface having flocking thereon. Flocking is a mat of thin, short, plastic fibers substantially perpendicular to the application surface. The bristles of a fiber brush are preferably tapered and made of a plastic material. Alternatively, the
20 user may use a more traditional applicator or implement known in the art.

As stated above, the user applies the composition wherein the user allows the composition to dry before subjecting the composition to insult. Once the composition is dried, a complimentary product such as the topcoat product disclosed above may be applied over the dried product to provide the user with an aesthetically pleasing affect. Topcoat compositions may utilize the same
25 dispensing device as described for use of the compositions of the present invention.

The compositions of the present invention may be removed by applying petrolatum or a dimethicone-based cosmetic remover and by rubbing the area gently with a tissue to remove the cosmetic.

EXAMPLES

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Example 1

40 grams of t-butyl acrylate, 40 grams of heptadecafluoro decyl acrylate and 20 grams of polydimethylsiloxane macromonomer are combined in a round bottom flask along with 100 grams

of toluene and 0.25 grams of V-601 initiator from Wako Chemicals. This mixture is degassed, and refilled with nitrogen then heated to 65C for 48 hours. The polymer formed is precipitated from methanol, dried then re-dissolved in acetone, re-precipitated from methanol and re-dried.

5 Example 2

	<u>Ingredients</u>	<u>Weight (%)</u>
	Group A:	
	Polydimethylsiloxane ¹	10
	Bentone Gel ²	20
10	Isododecane ³	30
	Group B:	
	Organosiloxane Resin ⁴	20
	Red #7 Calcium Lake	10
	Titanated Mica ⁵	6
15	Titanium Dioxide	3
	Black Iron Oxide	1
1	300,000 cSt polydimethylsiloxane available as DM300000 from Wacker Silicones. May also substitute polydimethylsiloxanes with viscosities at 25°C of 400,000 cSt, 500,000 cSt, 600,000 cSt, 700,000 cSt, 800,000 cSt, and 900,000 cSt.	
20	2 Bentone Gel ISD available from Elementis	
	3 Permethyl 99A available from Permethyl Corporation.	
	4 MQ Resin (0.7:1 M:Q) available as SR1000 from General Electric	
	5 Flamenco Superpearl available from Engelhard	
25	Combine Group A ingredients together in a beaker and mix with a propeller mixer until the mixture is homogeneous. Add Group B ingredients to the Group A Mixture and dry mix the mixture to roughly incorporate the dry powders. Then homogenize the formulation until all pigments are full dispersed. Transfer the resulting fluid to individual packages.	

30 Example 3

A solution of polymer, from example 1, is made by dissolving 1 gram of polymer in 7 ml of isododecane. This is mixed with 93 grams of the cosmetic composition of example 2, by stirring for 15 minutes, to form product for testing.

Example 4

A solution of polymer, from example 1, is made by dissolving 1 gram of polymer in 10 ml of ethanol. This is applied as a "top coat" over a previously dried film of product from example 2.

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All documents cited in the Detailed Description of the Invention are, are, in relevant part, incorporated herein by reference; the citation of any document is not to be construed as an admission that it is prior art with respect to the present invention.

10 While particular embodiments of the present invention have been illustrated and described, it would be obvious to those skilled in the art that various other changes and modifications can be made without departing from the spirit and scope of the invention. It is therefore intended to cover in the appended claims all such changes and modifications that are within the scope of this invention.